

Exploring Tualang Honey Formulation and Synvisc in Rabbit Osteoarthritis

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INTRODUCTION:

Tualang Honey, characterised by its anti-inflammatory and antioxidative properties, presents a novel therapeutic approach to osteoarthritis (OA) management. This study evaluates the efficacy of a Tualang Honey Formulation (THF) (Patent no. MY179303-A) injection, compared to Synvisc, a conventional hyaluronic acid injection, utilising radiographic findings in New Zealand White Rabbits (NZWR) as an OA model.

MATERIALS & METHODS:

A controlled experiment was conducted on 24 OA-induced NZWR. Two experimental groups received THF and Synvisc intraarticularly after 3 weeks post-surgery. The rabbits were then euthanised, and x-rays were taken at 3, 6, 12, and 24 weeks to evaluate joint space narrowing and subchondral sclerosis as indicators of OA progression.

RESULTS:

At 3 and 6 weeks, both groups demonstrated an improving condition in radiographic signs of OA, with no significant difference between them. At 12 weeks, the THF group showed a trend towards better preservation of joint space. By 24 weeks, the radiographic outcomes of THF were comparable to the Synvisc group, with no significant differences of OA progression.



Figure 1: Lateral view of the rabbits treated with THF at 3, 6, 12 and 24 weeks



Figure 2: Lateral view of the rabbits treated with Synvisc at 3, 6, 12 and 24 weeks

DISCUSSIONS:

The findings suggest that THF may offer a comparable alternative to Synvisc injections in managing OA, with the potential benefits of natural and halal composition and lower cost. However, further studies are needed to assess the long-term clinical outcomes and potential systemic effects of THF.

CONCLUSION:

THF injection is as effective as Synvisc hyaluronic acid injection in reducing radiographic signs of OA in New Zealand White Rabbits at 24 weeks, making it a potential candidate as a viscosupplement in the non-surgical management of OA.

REFERENCES:

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